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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,898	08/30/2001	Simon J. Lovett	MICS:0071/FLE 00-0901	9847

7590

01/22/2004

Michael G. Fletcher
Fletcher, Yoder & Van Someren
P.O. Box 692289
Houston, TX 77269-2289

EXAMINER

PHAM, LY D

ART UNIT	PAPER NUMBER
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2818

DATE MAILED: 01/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/942,898	LOVETT ET AL.	
	Examiner	Art Unit	
	Ly D Pham	2818	<i>MLW</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL ACTION

DETAILED ACTION

1. Applicant's Amendment filed December 22, 2003 has been entered. Claim 1 has been amended. Claims 13 – 36 have been cancelled.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAdams (US Pat 5,301,160) in view of Weaver et al. (US Pat 4,107,596).

Regarding **claim 1**, McAdams discloses a system comprising: a processor (fig. 1, 102), a power supply coupled to the processor (fig. 1, 112); and a device coupled to the processor and the power supply and comprising (fig. 2): an internal power supply bus configured to receive a power signal from the power supply (fig. 2, buses internal to 145 supplying Vdd 112); and an isolation circuit configured to disconnect the internal power supply bus from the power supply bus by interrupting the flow of the power signal (fig. 2, isolating circuit being p-mos transistors 282 and 284, which are configured to interrupt the power signals to TL and TR lines, which feed powers to the memory section, right dotted box in fig. 2).

Although McAdams did not explicitly show the isolation circuit receives a control signal to interrupt the flow of power during a standby mode; however practice of such feature, in which standby signal which control the isolation circuit to isolate the power from the load, is considered well known in the art. An exemplary instance is shown by Weaver et al. (col. 10, lines 57 – 60, ‘... OFF high impedance state for the duration of the standby mode in response to the standby-operate signal for isolating the load from the battery...’).

Therefore, it is considered obvious to one of ordinary skill in the art, at the time the invention was made, to combine the teaching by Weaver to the disclosure of McAdams so that minimal control current during standby mode (col. 1, lines 35 – 42).

Regarding **claims 2 – 4**, McAdams disclose the system being used in portable/battery powered devices (col. 4, lines 1 – 14);

Regarding **claim 5**, McAdams also disclose the system comprising a memory device (fig. 2, memory arrays);

Regarding **claim 6**, McAdams also discloses the internal power supply bus configured to provide signal to the device (fig. 2, internal buses feeding power to various components of 145, where labeled 112 /162).

Regarding **claims 8 – 10**, McAdams further discloses the system as set forth in claim 1, comprising a buffer comprising a control line configured to control the isolation circuit (fig. 1, row address buffer 122 being input buffer to row address decoders 124, which is a bitline isolation/selection/control circuit to the memory arrays, col. 4, lines 15 – 29, and the control lines

to the isolation circuit being inputs to 262 and 264). The isolation circuit is a p-channel fet and the control line is coupled to the gate of the p-fet.

Regarding **claim 11**, the system set forth in claim 1, also comprising an output buffer configured to buffer the device from the remainder of the system (fig. 2, data buffer 256 buffers the device from the remainder of the system).

4. Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAdams and Weaver et al, further in view of Hoffman et al. (US Pat 5,117,129).

Regarding **claim 7**, McAdams and Weaver et al. disclose the system as claimed in claim 1, except wherein the isolation circuit is coupled between a pad on the device configured to receive the power signal and the internal power supply bus. This feature is however shown by Hoffman et al. (fig. 3a, PAD connects to supply line 150 connecting to isolation p-mos transistor 158). Therefore, it is considered obvious to one of ordinary skill in the art, at the time the invention was made, to include the feature shown by Hoffman et al. to the disclosure of McAdams to provide stable drive to loads, col. 2, lines 30 – 38).

Regarding **claim 12**, although McAdams and Weaver et al. did not disclose, in addition to claim 1, an I/O pad and circuitry coupled between the output buffer and the I/O pad to tri-state the I/O pad. The feature is nevertheless shown by Hoffman et al. (fig. 3a, I/O pad 152 for tri-stating configuration, col. 3, lines 25 – 36).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication on earlier communications from the examiner should be directed to Ly Pham, whose telephone number is **(571) 272-1793**. The examiner can normally be reached on Monday – Friday from 8:30am to 5:00pm, alternate Friday off. The examiner's supervisor, David Nelms, can be reached at **(571) 272-1787**. The fax number for the organization where this application or proceeding is assigned is 703-308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Ly Pham

LP

January 19, 2004


David Nelms
Supervisory Patent Examiner
Technology Center 2800